

V. Remarks

Claims 1-23 are pending in the present application. Claims 1-4, 6, 9, 10-11, 13-14, 16 and 17-21 have been amended as set forth above and described below. Claims 5 and 15 have been canceled. Claims 24-29 have been added, examination of which is respectfully requested.

The Applicant is grateful to the Examiner for recognizing the allowable subject matter in Claims 2-4, 6-9, 14 and 16-23.

Claims 1-23 stand rejected, reconsideration and of which are requested in view of the foregoing amendments and the following arguments.

A. Claim Rejection Under §112

The Action rejects Claims 1-10 and Claims 13-23 as being indefinite. Claims 1, 10 and 13 have been amended to recite that the at least three error signals are generated from a sampled signal. It is submitted that these amendments address the Examiner's concerns with respect to the PLL having an input.

Claims 2, 3, 4 and 14 have been amended to clarify that the sampled values are "from a sampled signal" and that the ideal values are "for the sampled signal." It is submitted that the claims are sufficiently definite with these amendments, particularly in view of the description and use of these terms in paragraphs 29-38 of the specification.

Claim 6 has been amended to clarify the use of the terms "first digital output signal" and "second digital output signal." It is submitted that these amendments address the Examiner's concerns.

Claims 17-21 have now been amended to correct their dependency.

In view of the foregoing, reconsideration and withdrawal of the rejection under Section 112 of Claims 1, 6, 10 and 13, and those claims that depend therefrom are respectfully requested.

B. Objection to the Drawings

The objection to the drawings has been addressed above in Section II of this Response. Reconsideration and withdrawal of the objection are respectfully requested.

C. Claim Rejection Under 35 USC §102(b)

The Action rejects Claims 1, 5, 10, 13 and 15 as being anticipated by U.S. Patent No. 5,521,948 to Takeuchi. Claims 1, 10 and 13 have been amended to recite that “at least first and second phase error adjustment signals for adjusting for at least an amount and direction of occurring phase drift, respectively, of a recovered sampling clock” are generated. Generating error adjustment signals for adjusting for the amount and direction of ongoing or occurring phase drift in a recovered sampling clock allows for suitable compensation in a direction and in an amount appropriate to prevent or correct a loss of lock (LOL) event. (See, e.g., Paragraph 54 of the Specification). With a traditional phase lock loop, as a loss of lock event occurs, the traditional phase lock loop may drift in the wrong direction needed for correction. The claimed phase lock loop using a phase error adjustment signal for adjusting for drift direction (in addition to a signal for drift amount) allows the phase lock loop to produce correction in, for example, the opposite direction of drift, thereby allowing the phase lock loop to come back to normal operation.

It is submitted that the single signal provided by summer 25 identified by the Examiner in Takeuchi is not “first and second phase error adjustment signals indicative of at least an amount and direction of occurring phase drift, respectively, of a recovered sampling clock.” Applicant submits that the Examiner has recognized this point in rendering the objections to Claims 9 and 16. It is submitted that Independent Claims 1, 10 and 13 are allowable over the art of record. Likewise, it is submitted that Claims 2-4, 6-9, and 14-23, which depend from Independent Claims 1, 10 and 13, are also allowable.

D. Claim Rejection Under 35 USC §103

The Action rejects Claims 11-12 as being obvious from Takeuchi in view of U.S. Patent No. 6,308,298 to Blatchley et al. Claim 11 has been amended in the same manner as independent Claims 1, 10 and 13. For at least the reasons set forth above, each feature of Claim 11 is not taught by the combination of Takeuchi and Blatchley. It is submitted, therefore, that Claim 11 is allowable over the art of record. Claim 12 depends from Claim 11 and is also allowable. Reconsideration and withdrawal of the rejection of Claims 11 and 12 are respectfully requested.

E. New Claims

New Claims 24-27 have been added. Claim 24 depends from Claim 1 and recites the additional element of an oscillator. Claim 24 is allowable for at least the reasons stated above with respect to Claim 1.

New Claims 25-27 correspond to prior pending Claims 2-4, respectively, rewritten in independent form. It is submitted that these Claims are allowable as suggested by the Examiner.

New Claims 28 and 29 depend from Claims 1 and 13, respectively, and are directed to the embodiment where the second phase error adjustment signal indicates a direction opposite the direction of the occurring phase drift. Support for these claims can be found at, for example, Paragraphs 40 and 54.

PATENT
EXPRESS MAIL LABEL NO. EV394058915US

Annampedu 1
D8143-00305

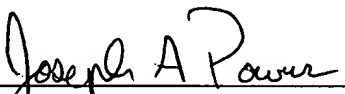
VI. Conclusion

In view of the foregoing remarks and amendments, Applicant submits that this application is in condition for allowance at an early date, which action is earnestly solicited.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account **04-1679**.

Respectfully submitted,

Dated: 9/8/04



Joseph A. Powers, Reg. No.: 47,006
Attorney For Applicant

DUANE MORRIS LLP
One Liberty Place
Philadelphia, Pennsylvania 19103-7396
(215) 979-1842 (Telephone)
(215) 979-1020 (Fax)